

1/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--DERMATITIS DUE TO EURHQBIDA RIGIDA M.B -U-
AUTHOR--(02)-SMIRNOV, L.D., YEFREMOV, A.I.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 6, PP 67-69
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--DERMATITIS, PROCESSED PLANT PRODUCT, PLANT TOXIN
CONTROL MARKING--NO RESTRICTIONS
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CIRC ACCESSION NO--AP0133301
UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC. ACCESSION NO--AP0133301

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT.

THE AUTHORS OBSERVED IN 12

PATIENTS CONTACT DERMATITES DUE TO SAP OF EUPHORBIA RIGIDA M. B. THE ACTIVE PRINCIPLE OF WHICH WAS EUPHORBIN (C SUB15 H SUB24 O SUB4). FOR THE PURPOSE OF INVESTIGATION OF THE CLINICAL PICTURE AND PROPHYLAXIS AND FOR DETERMINATION TO WHICH GROUPS DERMATITES DUE TO E. RIGIDA BELONG, ONE OF THE AUTHORS CARRIED OUT ON HIMSELF A SERIES OF EXPERIMENTS WITH THE SAP OF EUPHORBIA RIGIDA AND PLANTS OF SOME OTHER SPECIES OF THE SAME FAMILY. CLINICAL OBSERVATIONS OF DERMATITES AND THE EXPERIMENTS PERFORMED LED THE AUTHORS TO THE FOLLOWING CONCLUSIONS: (1) DERMATITES DUE TO SAP OF PLANTS BELONGING TO EUPHORNIA FAMILY ARE PRIMARY CONTACT DERMATITES; (2) THEY PRODUCE NO ECZEMATOUS OR ALLERGIC REACTIONS; (3) THE SAP OF MILKWORT HAS NO PHOTSENSITIZING PROPERTIES. ONE CASE IS DESCRIBED IN WHICH THE PATIENT DEVELOPED DERMATITIS IN THE AREA OF THE GENITALIA BECAUSE OF ACCIDENTAL TRANSMISSION OF MILKWORT SAP ON THE SKIN OF THE GENITALIA. FACILITY: KAFEDRA KOZHNYKH I VENERICHESKIKH BOLEZNEY KRYMSKOGO MEDITSINSKOGO INSTITUTA I KRYMSKIY OBLASTNOY KOZHNO-VENEROLOGICHESKIY DISPANSER, SIMFEROPOL.

UNCLASSIFIED

USSR

UDC 620.10

~~YEREMOV, A. K.~~, Candidate of Technical Sciences, Docent, and SMIRNOV, A. V.,
Graduate Student

"Experimental Investigation of the Influence of Wave Processes During a
Longitudinal Elastoplastic Impact"

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Mashinostroyeniye, No 7,
1972, pp 19-24

Abstract: A description is given of the laboratory installation and the test procedures; the parameters of the tested wave models, namely long steel rods, are presented. On the basis of an analysis of more than 100 oscillograms of impact processes, the conclusion is drawn that the calculated and experimental values of the proposed criterion for evaluating the degree of influence of wave processes are in sufficiently good agreement. On the basis of theoretical and experimental data, an engineering procedure is developed for the calculation of impact processes in elastic bodies with account taken of wave phenomena. 3 figures. 2 tables. 2 references.

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USSR

UDC 621.384.6+539.12

BLOKHINTSEV, D. I., YEFREMOV, A. V., and MURADYAN, R. M., Joint Nuclear Research Institute, Dubna

"The Planning of New Accelerators and Problems in Modern Elementary Particle Physics"

Moscow, Uspekhi Fizicheskikh Nauk, Vol 109, vyp 2, Feb 73, pp 259-268

Abstract: The article is based on a note commissioned by the Nuclear Physics Department of the Academy of Sciences USSR and compiled by a group of theoretical physicists consisting of D. I. BLOKHINTSEV, S. S. GERSHTEYN, G. V. YEFIMOV, A. V. YEFREMOV, V. G. KADYSHEVSKIY, A. A. KOMAR, V. A. MATVEYEV, V. A. MESHCHERYAKOV, R. M. MURADYAN, V. I. OGIYEVETSKIY, and A. T. FILIPPOV and delivered at an expanded session of the department.

The article begins with a brief survey of the characteristics of accelerators now in operation or in the planning stage and their updating. The 76-Gev proton accelerator in Serpukhov is to be updated by changing to superconducting magnets, which will permit an energy of the order of 1000 Gev.

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USSR

BLOKHINTSEV, D. I., et al., Uspekhi Fizicheskikh Nauk, Vol 109, vyp 2, Feb 73, pp 259-268

There are plans for the creation of 2X23-Gev proton-antiproton counterbeams in Novosibirsk. As for electron acceleration, a 2X700-Mev beam is in operation in Novosibirsk.

The main part of the article deals with "the most general and, at the same time, fundamental problems in elementary particle physics." These include: a) the search for an "elementary length"; b) the search for quarks, Schwinger's dions, intermediate bosons, Dirac's monopole, and heavy leptons; c) strong interactions (throwing light on the mechanism for the interaction of hadrons and their mass spectrum); d) electromagnetic interactions (the search for deviation from quantum electrodynamics and the problem of the difference between a mu-meson and electron, as well as the question of how universal self-similarity or scale invariance is); e) weak interactions (the problem of their dynamic nature).

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USSR

BLOKHINTSEV, D. I., et al., Uspekhi Fizicheskikh Nauk, Vol 109, vyp 2, Feb 73, pp 259-268

The article concludes by discussing promising directions for accelerator development: a) the updating of existing machines with a sharp increase in the intensity of the primary beam and, hence, secondary beams or with polarized particle acceleration; b) the creation of proton accelerators (based on superconducting magnets) with a proton energy of $E > 1000$ GeV ($W > 40$ GeV), with subsequent organization of counterbeams with a center-of-mass energy $W \gg 300$ GeV; c) research on collective methods of acceleration to superhigh energies of many thousands of gigaelectronvolts, especially the Veksler-Sarantsev method, for the creation of extremely high-energy hadron and lepton beams; d) the creation of $e\bar{e}$, $\mu\bar{\mu}$, and $p\bar{p}$ counterbeams with energy W as close to 300 GeV as possible.

The authors hope that they fully reflected the work of the entire group and thank the participants for their comments.

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1/2 025
UNCLASSIFIED
PROCESSING DATE--30OCT70
TITLE--FOREIGN INCLUSIONS IN THE CYCLED AIR AND THE REQUIREMENTS FOR THE
AIR TAKING SYSTEMS OF A GAS TURBINE UNIT -U-
AUTHOR--(03)-ALEKSEYEV, A.V., YEFREMOV, B.G., MIKHAYLOV, YE.I.
COUNTRY OF INFO--USSR
SOURCE--ENERGOMASHINOSTROENIE, VOL. 16, FEB. 1970, P. 7-9
DATE PUBLISHED-----70
SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, ENERGY CONVERSION
(NON-PROPULSIVE)
TOPIC TAGS--GAS TURBINE, EROSION, IMPURITY LEVEL, AIR BREATHING ENGINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1997/1486
STEP NO--UR/0114/70/016/000/0007/0009
CIRC ACCESSION NO--AP0120273
UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0120273

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE HARMFUL EFFECTS OF THE PRESENCE OF NATURAL AND TECHNICAL IMPURITIES IN THE CIRCULATED AIR ON THE TIME DEPENDENT PERFORMANCE OF GAS TURBINE UNITS. SPECIAL ATTENTION IS GIVEN TO THE DAMAGE FROM THE IMPURITIES PRODUCING EROSION, DEPOSITS AND OVER HEATING IN THE AIR FLOW SECTIONS OF GAS TURBINES. A GENERALIZED POLYTROPE TECHNIQUE IS USED TO ESTIMATE THESE DAMAGING EFFECTS. REQUIREMENTS WHICH SHOULD BE MET BY THE AIR INTAKE SYSTEMS ARE INDICATED. DESIGN CONSIDERATIONS ARE SET FORTH TO REMEDY THESE UNDESIRABLE EFFECTS.

UNCLASSIFIED

1/2 020

UNCLASSIFIED

PROCESSING DATE--02OCT70

TITLE--EUROPIUM AND DYSPROSIUM VALENCE STATES IN LAVES PHASES AND ISOMER
SHIFTS IN MOESSBAUER SPECTRA -U-

AUTHOR--(03)--YEFREMOV, E.N., BABESHKIN, A.M., NESMEYANOV, A.V.

COUNTRY OF INFO--USSR

SOURCE--VESTN. MOSK. UNIV. KHIM. 1970, 11(1), 46-B

DATE PUBLISHED--70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--ELECTRON DENSITY, ISOMER, ELECTRON STRUCTURE, RARE EARTH
METAL, ZINC COMPLEX, NICKEL COMPLEX, ALUMINUM COMPLEX, COPPER COMPLEX,
DYSPROSIUM, EUROPIUM, GALLIUM, RHODIUM, PALLADIUM, MOSSBAUR SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1989/0610

STEP NO--UR/0189/70/011/001/0046/0048

CIRC ACCESSION NO--AP0107207

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0107207

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ISOMER SHIFTS AND ELECTRON DS. ARE
TABULATED FOR THE INTERMETALLIC COMPS. OF DY AND EU WITH GA, CU, PT,
AL, RH, NI, PD, AND ZN. THE VALENCE OF EU DEPENDED ON THE POPULATION OF
THE D LEVEL IN THE TRANSITION METALS WHICH WERE THE 2ND CONSTITUENT OF
THE LAVES PHASES. THE ELECTRON D. AND THE VALENCE STATE FOR A RARE
EARTH METAL DEPENDS ON THE ELECTRONIC STRUCTURE OF THE 2ND COMPONENT.

UNCLASSIFIED

USSR

UDC 539.3

ARTEM'YEV, V. P., YEFREMOV, G. M., ZHIKHAREV, F. K.

"Results of Experimental Studies of Doubly Convex Rectangular Shells of Standard Plane Elements"

V sb. Prostranstv. konstruktsii v Krasnoyarsk. kraye (Three-Dimensional Structures in the Krasnoyarsk Region -- Collection of Works), Krasnoyarsk, 1972, pp 141-154 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V162)

Translation: The structural characteristics and test data for a reinforced concrete model of a shell of positive curvature constructed from standard plane elements are presented. The stress-deformation state of the shell is analyzed as a function of the deformability of the contour structures under the action of uniformly distributed and concentrated loads. Authors' abstract.

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USSR

UDC 8.74

YEFREMOV, G. O.

"Experience in Applying the BESM-4 Computer for the Formation of the Parts of Speech in the Chuvash Language"

V sb. Vopr. teorii i metodiki prepodavaniya fiz.-mat. nauk (Problems of the Theory and Method of Teaching Physical-Mathematical Sciences--collection of works), Cheboksary, 1972, pp 22-36 (from RZh-Kibernetika, No 12, Dec 72, Abstract No 12V513)

No abstract

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USSR

UDC 532.528

YEFREMOV, I. I. and SOROKA, P. A.

"An Approximate Calculation of Cavitation Flow Past Wings Having a Small Aspect Ratio"

Moscow, Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1973, pp 166-170

Abstract: Consideration is given to a linearized problem of a completely cavitating wing of small aspect ratio λ . The system of singular integral equations of the cavitating lifting surface is reduced to univariate equations by employment of the Lawrence approximation. The method of discrete singularities is used for a numerical solution of this system. Relationships of the lift coefficient and the wave length to the cavitation number are presented for square-cut wings with $0.25 \leq \lambda \leq 4$. 2 figures. 4 references.

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USSR

UDC 621.317.799:621.382.2

YEFREMOV, I.S., ZAGAYNOV, N.A., NIKOL'SKIY, I.K., BEZRUKOV, G.I., SLEPTSCOV, M.A.,
CHIRVINSKIY, V.M. [Mosk. energ.in-t--Moscow Power Institute]

"Method Of Continuous Measurement Of The Temperature Of A P-N Junction Of A Rectifier"

USSR Author's Certificate No 275256, filed 26 July 67, published 22 Oct 70
(from RZh--Elektronika i yeye primeneniye, No 4, April 1971, Abstract No 4B598P)

Translation: A method is proposed for continuous measurement of the temperature of the p-n junction of a rectifier, mainly under operational conditions. With the object of increasing the utilization factor of the rectifier power, the temperature of the rectifier case and the current of the loaded rectifier are measured simultaneously, proportional conversions of the parameters measured into uniform signals are performed, these signals are summed and by the magnitude of these sums the temperature of the rectifier's p-n junction is judged.

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UDC 616.001.34-057.084: 614.33

USSR

MIKULINSKIY, A. M., Candidate of Medical Sciences, and YEREMOV, N. I.,
Candidate of Economic Sciences, Gor'skiy Scientific Research Institute of
Labor Hygiene and Occupational Disease and Chair of Economics of Socialist
Industry of Gor'kiy Univeristy

"Social-Hygienic and Economic Significance of Reduced Occupational Morbidity
Due to Vibration"

Moscow, Gigiyena i Sanitariya, "Meditsina," Vol 36, No 8, Aug 71, pp 59-62

Abstract: The purpose of the investigations was to provide an analysis of the effect of prolonged work with strongly vibrating tools on the physiological functions of the organism, and the economic losses due to the development of occupational disease caused by vibration. The investigations were conducted at the Gor'kiy autoplant where highly vibrating pneumatic grinding tools are used in the manufacture of dies and other metal products. Changes in the peripheral circulation, cardiovascular system, and the n-motor apparatus were studied. Periodic examinations of the workers established that prolonged work with strongly vibrating machines induces the development of vibration pathology. The economic impact of vibration pathology was determined by a study of 56 shop workers with vibration sickness, noon over 40 years of age,
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USSR

MIKULINSKIY, A. M., and YEFREMOV, N. I., Gigiyena i Sanitariya, "Meditsina," Vol 36, No 8, Aug 71, pp 59-62

highly skilled and with a great deal of experience. An anamnesis of these workers revealed that during the past five years of working with strongly vibrating pneumatic tools each lost 30 working days annually because of occupational illness, their average annual productivity dropped by 11%, and the total 5-year financial loss because of such illness amounted to 167.7 thousand rubles, an amount equal to that of 23 days of the shop's output. Considerable additional losses in time and money were incurred as a result of the required medical and clinical care, hospitalization, necessary extra rest periods, and vacations, early retirements because of illness, large turnover of workers due to unfavorable working conditions, cost of subsidized retraining of workers for transfer to other occupations with training period lasting from six months to three years, and cost of training new workers. Steps must be taken to design tools with reduced vibration. A new grinding machine with an air-cushioned handle was designed in 1970. The new machine reduces vibration to a level even lower than that which is considered safe. Design and scientific research establishments and plants when planning new technical equipment must take into consideration not only their high productivity but also their complete safety.

2/2

USSR

UDC 615.281.875:615.385.3.011.17

PIGAREVSKIY, V. YE., SOROKIN, A. V., YEFREMOV, O. M., MOSHKIN, S. A., and
TOLYBEKOV, A. S., Institute of Experimental Medicine, Academy of Medical
Sciences USSR, Leningrad

"Antiinfluenza Antitoxic Activity of Leucocytic Pyrogen"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 72, pp 439-444

Abstract: The prophylactic effect of pyrogen obtained from rabbit leucocytes in peritoneal exudate was studied by injecting pyrogen intravenously into rabbits subsequently infected with A0/32 influenza virus. When injected 24 hours prior to viral infection, pyrogen prevented death and the tissue and vascular destruction typical of influenza intoxication. (The pyrogen also altered the body temperature pattern in response to influenza virus infection, causing disappearance of an early hypothermic phase, and development of a rapid temperature reaction.) A similar reaction was observed with injection of Newcastle disease virus prior to infection. This virus induced formation of interferon and pyrogens in rabbits. Though the mechanisms by which pyrogen increases resistance to virus in toxication are unknown and require further study, there is now an obvious connection between leucocyte products, including pyrogen, released during intoxication or infection and the increase in body resistance to virus toxin. The possibility of employing leucocytic pyrogen as a prophylactic or therapeutic agent against influenza must be studied.

1/1

USSR

UDC: 621.374.5(088.8)

Vasil'yev, N. I., YEREMOV, P. A., PLATONOV, O. T.

"A Delay Line"

USSR Author's Certificate No 267682, filed 2 Feb 68, published 5 Aug 70
(from RZh-Radiotekhnika, No 2, Feb 71, Abstract No 2G318 P)

Translation: This Author's Certificate introduces a delay line made up of L-shaped links containing an inductance and capacitance connected in series with taps from each link. To provide continuous control of delay without introducing nonhomogeneities into the line, bronze discs are soldered to the leads, acting as one plate of a multisection capacitor which is completed by a movable grounded plate.

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USSR

UDC: 669.715'5'721'3:539.3/5

ANAN'IN, S. N., YEFREMOV, P. T., CHERNIKOVA, E. A.

"Influence of Silicon on Properties of Alloys in the System Al-Zn-Mg-Cu"

Tekhnol. Legkikh Splavov. Nauch.-Tekhn. Byul. VILSa [Technology of Light Alloys. Scientific and Technical Bulletin of All-Union Institute of Light Alloys], 1973, No 3, pp 21-26 (Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8I695, by the authors).

Translation: The influence of Si on the mechanical and corrosion properties of alloys in the system Al-Zn-Mg-Cu is studied. As Si is introduced, the mechanical properties of the alloys after hardening, natural and artificial aging decrease. The level of mechanical properties of alloys in the system Al-Zn-Mg-Cu + Si can be increased by increasing the heating temperature before hardening from 470 to 500°. The corrosion properties of the alloys are not reduced in this case. Si helps to increase the corrosion properties of alloys in the system Al-Zn-Mg-Cu in the hardened and naturally aged states. The structure of alloys in the system Al-Zn-Mg-Cu + Si was studied after various aging modes. 4 figures, 4 tables, 3 biblio. refs.

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1/2 013 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--GOLD ASPHALT MASTIC -U-
AUTHOR--YEFREMOV, S.G.
COUNTRY OF INFO--USSR
SOURCE--U.S.S.R. 261,966
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--13JAN70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--ASPHALT, PATENT, PLASTICIZER, UNSATURATED HYDROCARBON
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3007/1776 STEP NO--UR/0482/70/000/000/0000/0000
CIRC ACCESSION NO--AA0137016
UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AA0137016
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COLD ASPHALT MASTIC CONTAINS
1.5-3PERCENT HIGH BOILING PRODUCTS OF THE GASOLINE FRACTION OF UNSATD.
HYDROCARBONS AS PLASTICIZING ADDITIVES. FACILITY: VSESOUZNY
NAUCHNO-ISSLEDOVATEL'SKIY INSTITUT GIDROTEKHNIKI IM B. YE. VEDENEYEVA.

UNCLASSIFIED

USSR

UDC: 621.397:621.396.61

DALINENKO, N. K., YEFREMOV, V. A., DEMINA, N. F., KRUPCHATNIKOV, V. A.,
SURIKOV, I. N.

"A Method of Objective Measurement of the Noises and Signal From Fine Details
of Images of the Dissectors in the Small-Frame Scanning Mode"

Elektron. tekhnika. Nauch.-tekhn. sb. Elektronoluch. i fotoelektr. pribory
(Electronic Technology. Scientific and Technical Collection. Electron-Beam
and Photoelectric Devices), 1970, vyp. 4(18), pp 40-46 (from RZh-Radiotekh-
nika, No 5, May 71, Abstract No 5G113)

Translation: The authors discuss an objective method of measuring the signal-
to-noise ratio and depth of modulation of the signals of fine details in an
image in cameras with dissectors in the small-frame scanning mode. The
characteristics of the equipment developed are presented together with the
results of measurements made by the proposed method. Resumé.

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USSR

UDC 621.374.33

GORBUNOV, V. A., YEFREMOV, V. A.

"Statistical Optimization of the Circuit Parameters of a Field Transistor Electronic Switch"

Metody razrab. radioelektron. apparatury. No 1 (Methods of Developing Radio-electronic Equipment. No 1), Moscow, 1970, pp 76-78 (from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8G278)

Translation: This article contains a circuit analysis with the help of multi-dimensional vectors: the vector of random transistor characteristics, the vector of the circuit parameters and the vector of the switch output parameters. A procedure for optimal selection of the output parameter vector for which the effect of the random nature of the transistor parameters on satisfaction of the imposed limitations is reduced to a minimum is demonstrated. A random search algorithm giving a solution with acceptable accuracy is proposed.

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USSR

UDC 681.326.77:681.327.66

DURANDIN, K. P., and ~~YEFERMOV, V. D.~~, Leningrad Polytechnical Institute
imeni M. I. Kalinin

"A Device Which Makes Choices According to Priorities"

USSR Author's Certificate, No 279171, Filed 18 Jun 69, Published 11 Nov 70
(from Referativnyy Zhurnal -- Avtomatika, Telemekhanika, i Vychislitel'naya
Tekhnika, No 8, 1971, Abstract No 2B305 P)

Translation: A device which makes choices according to priorities is suggested. It contains a unit which selects the channel with the highest priority and a unit for sequential (cyclic) choice of a channel. In order to simplify the device and to increase its speed of operation, the outputs of the unit which selects the high-priority channel are connected to the corresponding number of the channel and to the inputs of the binary magnetic keys of the unit for cyclic choice of a channel. One of the outputs of the latter is connected with the input of the following key on the ring.

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YE FREMOV, V. F.

PAIDMENTS AND ERROR: OF MAGNETICALLY SENSITIVE ELEMENTS OF FERROUS GRADIENT
[Article by V. F. Yefremov (Special Design Office of USSR Ministry of Defense,
Geofizicheskaya Akademiya, Russian, No. 30, 1972, pp 42-47)]
UDC 550.838.02
1 Aug 73

The method of measuring the gradient of magnetic field strength in
has hardly been introduced since until now, there have been no special cap-
nically sensitive elements (KSE) measuring the gradient. Recently in the
USSR and abroad, information has appeared about reports in which measure-
are taken of the difference in values of the magnetic field in two points of
space [1, 5, 6]. For measuring the difference in the values of the magnetic
for the total vector of magnetic field strength in two points of space or
employ the KSE of nuclear precession and quantum magnetometers. The exis-
Information about the methods of measuring the gradient of magnetic field strength is provided by the
devices with ferrous KSE, ensuring the components of field strength by the
the gradient of magnetic field strength; however, rigorous requirements are
imposed on the design of the KSE of a ferrous gradientometer and on the identi-
ty of the electric and magnetic parameters of its half-cells.

The KSE of a gradientometer can have one- or two-rod (differential) ferro-
magnetic rods. The basic parameters of a ferrous rod as a transformer of the value
of the magnetic field strength to an electric signal U_0 are the character-
istic of field intensity, $\cos \psi$ and the conversion factor S , ψ , conditioning
the amplitude and phase characteristics of the KSE.

In the case of an ideal KSE of the ferrous gradientometer (magnetic
area of the half-cells are parallel, while the conversion factors are the
same), the output voltage of second harmonic can be written

$$U_0 = \frac{N}{2} S_m \cos \psi \sin(2\omega t + \psi),$$

where ΔH is difference in values of magnetic field strength at points of pla-
cing the half-cells; Δl is distance between the half-cells; and S_m is S at $\psi = 0$.

The ideal KSE of a ferrous gradientometer has the following parameters:
directivity $\cos \psi$ at $\psi = 0$, $\psi = \pi$ (Fig. 1, a), amplitude ΔH at $\psi = 0$ at
 $N = 2$, $S_m = 1$, $\psi = 0$, (Fig. 1, b, curve 1), phase $\psi = \pm \pi/2$ at $N = 2$, $\psi = \pi$ at
(Fig. 1, c, curve 1). In practice, however, these relationships are not ful-
filled; this causes the appearance of errors (greatly exceeding the measured
value of the magnetic field strength's gradient).

Power Line Transmission of Control Data

USSR

UDC .621.316.1.052.63

YEFREMOV, VALERIY YEFREMOVICH

"Transmission Of Information On Distribution Networks Of 6-35 Kilovolts"

Peredacha informatsii po raspreditel'nyy setyam 6-35 kv (cf. English above),
Moscow, Izd-vo "Energiya," 1971. 160 pp 112 ref. Ill.

Abstract: The book presents a systematic analysis of methods and means for frequency multiplexing of electrical networks with a voltage of 6-35 kv, which are utilized during transmission of information for control of power units. Theoretical problems connected with the electrical parameters of high-frequency channels are complemented by numerous experimental data. The principal requirements on multiplexing apparatus for distribution networks are determined. Typical examples of the organization of communication channels are considered. The book is intended for specialists of scientific-research, drawing and designing, and exploitational organizations, and for workers in the field of the technics of high-frequency communication lines; and can be useful to graduate students and students of electrical engineering and power higher educational institutes of corresponding faculties during study of problems of the transmission of information on electrical networks.

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USSR

YEFREMOV, VALERIY YEFREMOVICH, Peredacha informatsii po raspreditel'nyam setyam 6-35 kv, Moscow, Izd-vo "Energiya," 1971. 160 pp 112 ref. Ill.

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USSR

YEFREMOV, VALERIY YEFREMOVICH, *Peredacha informatsii po raspreditel'nyy setyam 6-35 kv*, Moscow, Izd-vo "Energiya," 1971. 160 pp 112 ref. 111.

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USSR

YEFREMOV, VALERIY YEFREMOVICH, Peredacha informatsii po raspreditel'nyy setyam 6-35 kv, Moscow, Izd-vo "Energiya," 1971. 160 pp 112 ref. Ill.

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USSR

UDC 550.831

YEFREMOV, V. V., GORIN, V. P., TIKHOMIROV, Ye. M., KHITROV, S. I.

"A Gravimeter"

USSR Author's Certificate No 347721, Filed 26/01/71, Otkrytiya, Izobreteniya Promyshlennye Obraztsy Tovarnye Znaki, No 24, Moscow, 1972, p 152.

Translation: A gravimeter, containing a pendulum on an elastic suspension, fastened to the pendulum of a vertical plate of a dielectric, two nonmoving vertical metal plates, rigidly connected to the body, a control panel, including a supply oscillator, a capacitive bridge, one of the diagonals of which contains an indicator galvanometer, and a voltage divider with a reading device, differing in that in order to simplify the process of operation of the gravimeter, the nonmoving plates are connected into one arm of the capacitive bridge, while the supply generator is connected to another arm of this bridge by means of a voltage divider.

1/1

- 177 -

YE FREMOV, V. V.

EXPERIENCE WITH VITAMIN E SUPPLEMENT FOR BICYCLE RACERS AND SKIERS

UDC: 615.356:577.141.3].035:796

[Article by Ye. A. Saksyeva, V. V. Yefremov, Institute of Nutrition, USSR Academy of Medical Sciences, and Central Institute of Physical Culture, Moscow; Vestnik Akademi Meditsinskikh Nauk SSSR, Moscow, No 7, 1972, pp. 52-55]

Vitamin E has a very broad biological action. Most significant is its role in oxidant-reducing processes as a participant in biosynthesis of coenzyme Q (ubiquinone [7]) and as a biological antioxidant. Together with vitamin A it regulates the resistance of cellular membranes and intracellular organelles, and it participates in biosynthesis of fats and phospholipids.

For this reason, it is not by chance that doctors and trainers who use vitamins in athletic practice with success were interested in vitamin E. A vitamin E supplement in the diet of athletes during training and competitions yielded encouraging results. For example, Dragun (1960, 1964) reports that vitamin E increases athletic efficiency, diminishes fatigue, and eliminates mental activity.

According to the data of Prokop, vitamin E is instrumental in more economic expenditure of oxygen by tissues during physical stress. These facts are confirmed by Japanese investigators (Tatsuo Nagawa et al.) who made a study of bicycle racers at sea level and at an altitude of 2700-2900 meters. Analogue data were obtained by the Soviet investigators, S. Berezman and Ye. Koshulenko, who observed bicycle racers for two years and found that under the influence of vitamin E there was normalization of cholesterol and protein fractions, decrease in blood sugar after a measured load. The athletic indices were higher among bicycle racers who received a vitamin E supplement. However, the authors used different doses of vitamin E ranging from 60 to 1500 mg per day (Dragun; Dragun; Prokop; Tatsuo Nagawa et al.; R. Berezman and Ye. Koshulenko; Cureton).

On the basis of the foregoing, our objective was to investigate the availability of vitamin E to the organism during heavy physical work in order to obtain initial data for development of norms for vitamin E intake under such conditions.

ABSTRACTS OF ARTICLES PUBLISHED IN THIS ISSUE

[Abstracts: Moscow, Vsesoyuznyy Meditsinskikh Nauk SSSR, Russian, No 2, 1972, p 96]

"Medicobiological Investigations Dealing with the Use of Estrogens as Growth Stimulating Agents," by A.A. Pokrovskiy, M.F. Nosov, G.P. Vavilina, Ye.Ye. Ryzantseva, L.Ya. Solov'yeva, p 3.

As a result of medicobiological examination of meat products obtained from bull calves stimulated with diethylstilbestrol, it was shown that the recommended method of using this hormone does not rule out the possibility of retention in subproducts of meat of residual quantities of this agent. When feeding laboratory animals on experimental meat there was manifestation of some adverse effects on their development and change in sex gland function. On the basis of the data obtained and the literature, with due consideration of worldwide experience in using diethylstilbestrol to fatten various species of animals, the authors conclude that it is impossible to use this preparation in animal breeding.

There are eight tables, one illustration; bibliography lists 118 items.

"Experience with Vitamin E Supplement for Bicycle Racers and Skiers," by Ye.A. Safareva, V.V. Zefremov, p 55.

A study was made of the effect of different intensities of physical stress on vitamin E availability in the organism of cyclists and skiers during winter sport meets. As a result of the study it was found that 1.5-2 and especially 3-4-hour training induces a considerable decline in vitamin E content in the blood serum of the athletes. Additional intake of this vitamin in doses of 30-150 mg for cyclists who trained for 1.5-2 hours and 200-300 mg for skiers who trained for 3-4 hours raises the blood serum vitamin E level and results in greater efficiency of the athletes.

Two illustrations; bibliography lists nine items.

- 149 -

"A Trans Antrumectomy Technique in Surgery for Peptic Ulcers," by Yu.M. Panterev, A.A. Grinberg, I.I. Lukhtanova, p 72.

A method is described for pinpointing the boundaries of the antral portion of the stomach during surgical interventions using 2% solution of Congo red dye as an indicator on the gastric mucosa. The method has been developed experimentally and used in clinical practice on 30 patients with duodenal and gastric ulcers; this revealed that it is simple, safe, and permits performance of a trans antrumectomy, in other words, it permits the performance of a functionally substantiated sparing operation on the stomach. The precision of the method was confirmed by histological examinations.

Two illustrations; one table; bibliography lists 24 items.

- END -

10,657
CSO: 1847-W

USSR

UDC 621.396.96

YeFREMOV, Ye. I.

"Apparatus for Determining the Direction and Speed of Signals"

USSR Author Certificate Class G Ols 9/00, No 337742, filed 21 Feb 70, published 5 June 72 (from RZh-Avtomatika Telemekhanika i Vychislitel'naya Tekhnika, No 3, Mar 73, Abstract No 3 A316 P)

Translation: An apparatus is suggested for determining the direction and speed of signals; it contains three sensors at the vertices of a triangle, connected to three sawtooth generators, and a computational circuit. To simplify the apparatus, one of the sensors is common to all the sawtooth generators, which produce sawtooth voltage with a regular slope; the computational circuit is connected to the sawtooth voltage generators with a common sensor; and two switches are on the output of the apparatus, controllable by the common sensor. Two illustrations.

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- 3 -

USSR

UDC 681.327.11

YEFREMOV, YE. I.

"An Information Recording Device"

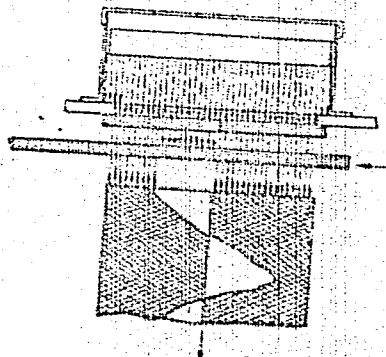
Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 8, 1970, pp 122-123, patent No 214013, filed 31 Jan 69

Abstract: This Author's Certificate introduces a device for recording information which contains a light source, light pulse generator, moving graphic recorder element, and a housing consisting of a cover and a base with a slit. As a distinguishing feature of the patent, the operational reliability of the device is improved by making the light pulse generator of two sections, with perpendicular planes of light polarization. The upper plate of the light pulse generator is fastened to the base of the housing, while the lower plate is fastened to the moving recorder element.

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USSR

YEFREMOV, YE. I., Moscow, Otkrytiya, Izobreteniya, Promyshlennyye
Obraztsy, Tovarnyye Znaki, No 8, 1970, pp 122-123, patent No 264013,
filed 31 Jan 69



2/2

1/2 011
UNCLASSIFIED
TITLE--CONFORMATIONS OF MEDIUM DEPSIPEPTIDE RINGS. II. VIBRATIONAL SPECTRA
AND DIPOLE MOMENTS -U-
AUTHOR-(OS)-AND-REYEVA, L.I., IVANOVA, T.M., YEFREMOV, YE.P., ANTONOV,
V.K., SHEMYAKIN, M.M.
COUNTRY OF INFO--USSR
PROCESSING DATE--02OCT70
SOURCE--Zh. Obshch. Khim. 1970, 40(2) 475
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--PEPTIDE, DIPOLE MOMENT, EXCITED STATE, MOLECULAR INTERACTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/1415
STEP NO--UR/0079/70/040/002/0475/0480
CIRC ACCESSION NO--AP0112409
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0112409

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. IR SPECTRA OF 3 KNOWN
DEPSIPEPTIDES AND THEIR DIPOLE MOMENTS SHOWED THAT THESE 10, 11, AND 12
MEMBERED RING SYSTEMS EXHIBIT VARIATION OF CIS TRANS FORMS THAT DEPENDS
ON RING SIZE AND SUBSTITUENT STRUCTURE. IN THE 10 MEMBER RING THE
CONFORMATIONS REALIZED ARE THOSE FAVORING INTRAMOL. INTERACTION OF AMIDE
AND ESTER GROUPS AND THE POSSIBILITY OF TRANSANNULAR INTERACTION IS
REALIZED IN THE EXCITED STATE; THESE EFFECTS ARE MUCH WEAKER IN THE
LARGER RING SYSTEMS. THE DIPOLE MOMENTS OF THESE PEPTIDES RANGE FROM
3.4D TO 4.9D.

UNCLASSIFIED

USSR

UDC 550.831

TOROPIN, S. I., KAYAK, L. K., KANDEL', YA. M. and YEFREMOV, YU. P.

"A Pendulum for Gravimetric Measurements"

USSR Author's Certificate No 366443, Filed 26 Jul 71, Published 16 Jan 73
(from Otkrytiya, Izobreteniya, Promyshlennyye Uraztsy, Tovarnyye Znaki, No 7,
Mar (a) 73, Claim No 1696077/26-25)

Translation: A pendulum for gravimetric measurements, containing a shaft with supporting and moving massive carriers, distinguished by the fact that, in order to increase the accuracy of measurement, the shaft is made in the form of a sleeve with a catch also set on one of the carriers.

1/1

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USSR

UDC 661.183.3:546.655

SHAFTIYEV, A. I., and YEFREMOV, YU. V.

"Behavior of Berkelium When Separating It From Cerium in an Anion-Exchange Resin"

Leningrad, Radiokhimiya, Vol XIV, No 5, 1972, pp 735-738

Abstract: On the premise that the experimental facts of extraction of berkelium D2EGFK from nitric acid solutions with a high content of oxidizing agent after their contact with an anion-exchange resin or tricaprylmethylammonium nitrate observed by Moore (F. L. Moores, et al., Anal. Chem., Vol 37, No 6, 687, 1965; Vol 38, No 13, 1872, 1966; Vol 39, No 14, 1874, 1967; Vol 41, No 12, 1658, 1969; US Patent 3409414, Nov 5, 1968; US Patent No 3402027, Sept 17, 1968) cannot indicate that on separation of berkelium from cerium in the presented systems the berkelium is in the tetravalent state, a study was made to discover the causes of the different behavior of berkelium and cesium in the systems.

Indicator amounts of radio chemically pure ^{144}Ce , ^{144}Pr , ^{244}Cm and freshly isolated ^{249}Bk isotopes were used in the experiment. The behavior of Cm^{III} , Pr^{III} , berkelium $^{\text{IV}}$ on sorption from 8 normal HNO_3 in a column with $1/2$

USSR

SHAFIYEV, A. I., and YEFREMOV, YU. V., Radiokhimiya, Vol XIV, No 5, 1972, pp 735-738

a mixture of Dowex-I resin and lead dioxide is plotted graphically. The difference in behavior of berkelium and cerium on separation of them using the strongly basic anion exchange resins such as Dowex-I or extractant of the trialkylamine type consists not in the "special" capacity of the Bk^{4+} ion for hydration but the very rapid transition $Bk^{4+} \rightarrow Bk^{3+}$ on contact with the resin or the extractant in the presence of an oxidizing agent.

2/2

- 26 -

USSR

YEFREMOV, Yu. V.

"Surface Tension of Mixtures of C_7-C_{10} Alcohols with Heptane"

Poverkhnostnoye Nityazheniye Smesey Spirtov C_7-C_{10} s Geptanom [English Version Above], Moscow, 1971, 10 pages (Translated from Referativnyy Zhurnal, Khimiya, No 3, 1972, Abstract No 3 B1462 Dep. from the Resume).

Translation: The surface tension σ of mixtures of C_7-C_{10} alcohols with heptane is studied. In the area of low alcohol concentrations, the structure of the surface layer is unstable, the alcohols act like surfactants in water, they are negatively sorbed on the surface of the heptane. Adsorption increases with increasing molecular weight of the alcohol. In the area of high concentrations of alcohols, σ passes through a maximum. The curves of surface entropy of the mixtures indicate the formation of complexes of alcohols with heptane.

1/1

- 11 -

Nitrogen Compounds

USSR

UDC 547.794:543.51

YEFREMOV, YU. YA., MUSIN, R. Z., FUDOVIK, M. A., and KIBARDINA, L. K.,
Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov, USSR
Academy of Sciences, Kazan

"Mass Spectra of Some 1,3,2-Oxazaphospholines"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 7, 1973, pp 894-
897

Abstract: "Mass spectra of 1,3,2-oxazaphospholanes made it possible to determine the pathways of dissociative ionization from the intensity of m/e lines. Intensity of the $m/e = M$ line decreased with an increase in the number of C atoms in the alkoxy radical. Dissociative ionization involved breaking of C-C and P-O bonds in the ring and loss of $R'CHO$ from the molecular ion. The olefin molecule was primarily formed from the alkoxy group. Loss of the alkoxy group was the most likely process of dissociative ionization of the molecular ion; in the case of the 2-chloro derivative it was the loss of the Cl atom.

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USSR

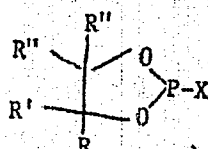
UDC 543.51:547.72:546.183

YEFREMOV, Ya. Ya., MUSIN, R. Z., GURARIY, L. I., and MUKMENEV, E. T.,
Institute of Organic and Physical Chemistry Imeni A. Ye. Arbuzov, Academy
of Sciences USSR, Kazan'

"Mass Spectrometric Analysis of Some Five-Membered Phosphite Rings"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 10, 1972, pp 1329-1330

Abstract: The 1,3,2-dioxaphospholanes of the following type were studied



For a compound A, $R = R' = R'' = H$, $X = OC_2H_5$; for B, $R = CH_3$, $R' = R'' = H$, $X = OC_2H_5$; for C, $R = R' = R'' = CH_3$, $X = OC_2H_5$; for D, $R = R' = R'' = H$, $X = OC_6H_5$; and E, $R = R' = R'' = H$, $X = Cl$. The parent peak M^+ comprised from 2.8% for B to 11.00% for D of the total peak areas. The $(M - 2)^+$ peak from the loss of C_2H_4 from the ethoxy group was 10% for A, a few % 1/2

USSR

YEFREMOV, Yu. Ya., et al., Khimiya Geterotsiklicheskikh Soyedineniy, No 10, 1972, pp 1329-1330

for B and C, and negligible for D & E (the latter not containing the $-OC_2H_5$ group). The $(M-45)^+$ peak, i.e., loss of $-OC_2H_5$, for A, B, & C, has a value similar to the $(M-28)^+$ peak. Decreasing the number of methyl groups increases the stability of the ions where X represents an electron or $X = OH$. Loss of the "X" group and loss of the alkyl part of the alkoxy group appear to be the main dissociation reactions of these compounds.

2/2

46

1/2 018 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--INFLUENCE OF MUTUAL INHIBITION DURING THE SIMULTANEOUS
POLYMERIZATION OF CYCLIC ETHERS AND CYCLIC ACETALS -U-
AUTHOR--(04)--YEFREMOVA, A.I., PONOMAREVA, T.I., ROZENBERG, B.A.,
YENIKOLOPYAN, N.S.
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK SSSR 1970/190(4), 872-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--FURAN, ORGANIC OXYGEN COMPOUND, POLYMERIZATION, AROMATIC
ETHER, ACETAL, ORGANOANTIMONY COMPOUND, CATALYST, GAS CHROMATOGRAPHY,
COMPLEX COMPOUND, EXCHANGE REACTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/2012 STEP NO--UR/0020/70/190/004/0872/0875
CIRC ACCESSION NO--AT0112967
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--ATD112967

ABSTRACT/EXTRACT--(U) GP-D- ABSTRACT. THE ADDN. OF TETRAHYDROFURAN (I) TO 1,3-DIOXOLANE (III) DECREASES ITS HOMOPOLYMN. RATE IN THE PRESENCE OF ET SUB3 US8CL SUB6 CATALYST. THE COPOLYMN. OF I WITH II WAS DESCRIBED EARLIER (N. OKADA ET AL., 1965) AND THE REACTIVITY RATIOS WERE DETD. THE ANAL. OF I AND II CONVERSION RATES, OBTAINED BY THE DILATOMETRIC AND GAS CHROMATOG. METHODS, SHOWS THAT THE ADDN. OF I TO ACTIVATED II IS A FAST REACTION. HOWEVER, THE ADDN. COMPLEX III HAS WEAK C-O PRIME POSITIVE BOND AND UNDERGOES EXCHANGE REACTIONS WITH I MORE READILY THAN COPOLYMN.

FACILITY: INST. KHIM. FIZ., MOSCOW, USSR.

UNCLASSIFIED

USSR

LAZAREV, S. D., SHEPEL'SKIY, G. A., and YEFREMOVA, G. D.

"Photomagnetic Effect Under the Strong Heating of Electrons by Light"

Leningrad, Fizika Tverdogo Tela, No 11, Nov 70, pp 3317-3319

Abstract: Stronger light than was used in previous experiments was applied to show that the ferromagnetic effect in n-In-Sb and n-InAs at helium temperatures is determined by the heating of electrons by light and is essentially the Nernst effect for hot electrons. Under weak light it was shown, for n-InSb at $T = 4^\circ\text{K}$ and $n = 4 \cdot 10^{15} \text{ cm}^{-3}$, that $\Delta T(0)/T$, where T is the equilibrium electron temperature and ΔT is the nonequilibrium addition to it, exceeds $\Delta n(0)/n$ by at least a factor of 100; the authors hypothesize that by increasing the light signal, one could expect to achieve the case in which the change in temperature $\Delta T(x)$ was comparable with T and the change in concentration was still small. It would follow that such a case of nonlinear heating would be easier to achieve in degenerate samples when the effective energy transmitted by a photoelectron to the system of equilibrium particles should increase with an increase in the equilibrium concentration n . This could not be achieved under conditions of this

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USSR

LAZAREV, S. D., et al, Fizika Tverdogo Tela, No 11, Nov 70, pp 3317-3319

experiment with light intensities $I = 10^{17}$ quanta/cm²:sec in degenerate samples with electron concentrations $n > 10^{15}$ cm⁻³. With purer samples of n-InSb ($n = 10^{13}$ - 10^{14} cm⁻³ but still $\Delta n \ll n$) the heating of a smaller number of electrons and, naturally, a smaller light energy are required. The photomagnetic effect was measured as a function of light intensity at temperatures of 4.2° and 78°K. At helium temperatures there was observed a distinct nonlinear segment in the photomagnetic effect: the photomagnetic emf is saturated and then drops with an increase in light intensity. The intensity at which the nonlinear segment begins is a function of the magnetic field strength H.

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172 020 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--LIQUID LIQUID GAS EQUILIBRIUM DIAGRAM IN AN ETHANE N EICOSANE N
HEXACECANE SYSTEM -U-
AUTHOR--(02)--YEFREMOVA, G.C., SHVARTS, A.V.
COUNTRY OF INFO--USSR
SOURCE--ZH. FIZ. KHIM. 1970, 44(3), 837
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHASE EQUILIBRIUM, EQUILIBRIUM DIAGRAM, ETHANE, ALKANE,
PRESSURE, THERMAL EFFECT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3005/0005 STEP NO--UR/0076/70/044/003/0837/0837
CIRC ACCESSION NO--AP0132305
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--20NOV70

2/2 020

CIRC ACCESSION NO--AP0132305

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE COMPN., PRESSURE, AND VOL. OF

THE TITLE SYSTEM APPROACHED THOSE OF THE INDIVIDUAL COMPONENTS UNDER

INCREASING TEMP. THE HIGH ORDER CRIT. PHENOMENA APPEARED AT

40.7DEGREES, AND 55.5 ATM.

UNCLASSIFIED

1/2 018 UNCLASSIFIED PROCESSING DATE--11DEC70
TITLE--LIQUID GAS EQUILIBRIUM IN A WATER AMMONIA POTASSIUM NITRATE CALCIUM
NITRATE POTASSIUM CHLORIDE SYSTEM -U-
AUTHOR-(03)-SORINA, G.A., MINICOVICH, V.M., YEFREMOVA, G.D.
COUNTRY OF INFO--USSR
SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(5), 1015-19
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHASE EQUILIBRIUM, AQUEOUS SOLUTION, AMMONIA, POTASSIUM
NITRATE, CALCIUM COMPOUND, NITRATE, POTASSIUM CHLORIDE, SOLUBILITY,
CRYSTALLIZATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3004/0938 STEP NO--UR/0080/T0/040/005/1015/1019
CIRC ACCESSION NO--AP0131924
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--11DEC70

2/2 018

CIRC ACCESSION NO--AP0131523

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE CRYSTN. TEMPS. IN THE H SUB2
G, NH SUB3 AND SUB3 CAINO SUB3) SUB2 KCL SYSTEM AND THE SOLY. OF NH SUB3
IN AQ. SOLNS. OF THE NITRATES OF K AND CA, AND OF KCL AT PRESSURES UP TO
1 ATM WERE STUDIED. THE SOLY. OF THESE SALTS DECREASES WITH INCREASED
CONCN. OF NH SUB3 IN THE SOLN. THIS SYSTEM FOLLOWS HENRY'S LAW TO
SMALLER THAN OR EQUAL TO 50 DEGREES AND AMMONIA CONCNS. SMALLER THAN OR
EQUAL TO 7 MOLES-1000 G H SUB2 O. THE PRESENCE OF THE SALTS DOES NOT
CHANGE THE SOLY. OF NH SUB3 IN WATER.

UNCLASSIFIED

Acc. Nr:

AP0038028

Ref. Code: UR 0056

PRIMARY SOURCE: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1970, Vol 58, Nr 1, pp 60-67

QUANTUM OSCILLATIONS OF PHOTOMAGNETIC EFFECTS
AND PHOTOCONDUCTIVITY IN InSb AND InAs

Kikoin, I. K.; Lazarev, S. D.; Shepel'skiy, G. A.;
Yefremova, G. D.

Quantum oscillations of photomagnetic phenomena in the degenerate semiconductors n -InSb and n -InAs are investigated in magnetic fields up to 50 kOe and temperatures between 1.8 and 4.2° K. At magnetic field strengths at which the photomagnetic e.m.f. changes sign (anomalous region) a pronounced nonlinear dependence of the photomagnetic effects on incident light intensity is observed under conditions of weak illumination ($\Delta n \ll n$). With increase of light intensity the photomagnetic e.m.f. passes through a maximum and then changes sign. Photoconductivity in a magnetic field was studied in the same samples. A negative photoconductivity in a transverse magnetic field was observed. A theoretical interpretation of the anomalous phenomena apparently requires that the role of not electrons be taken into account.

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19731069

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98

1/2 029
UNCLASSIFIED
PROCESSING DATE--23OCT70
TITLE--HOT ELECTRON PHOTOMAGNETIC EFFECT AND PHOTOCONDUCTIVITY -U-
AUTHOR--(03)--LAZAREV, S.D., SHEPELSKIY, G.A., YEFREMOVA, G.D.
COUNTRY OF INFO--USSR
SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(2), 419-21
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--PHOTOMAGNETIC EFFECT, PHOTOCONDUCTIVITY, ELECTRON TEMPERATURE,
INDIUM ANTIMONIDE SEMICONDUCTOR, CARRIER DENSITY, VOLTAGE STABILIZATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/0090
STEP NO--UR/0449/70/004/002/0419/0421
CIRC ACCESSION NO--AP0105176
UNCLASSIFIED

2/2 029

CIRC ACCESSION NO--AP0105176

UNCLASSIFIED

PROCESSING DATE--23OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF ELECTRON HEATING IN THE PHOTOMAGNETIC EFFECT (V. ABAKUMOV, ET AL., 1958) WAS STUDIED FOR NINSB SAMPLES IRRADIATED WITH ULTRAHIGH FREQUENCY RADIATION IN THE PRESENCE OF A QUANTIZING MAGNETIC FIELD. IN THIS CASE, AN EMF. ORIGINATES WHICH IS UNEVEN ALONG THE MAGNETIC FIELD (PHOTOTHERMOMAGNETIC EFFECT) (A. VYSTAVKIN, ET AL., 1963). THE CHANGE IN THE VOLTAGE FOR THIS EFFECT OSCILLATES; THE PHASE AND PERIOD OF THE OSCILLATIONS ARE DETD. BY THE ELECTRON CONC. A COMPARISON OF THE FIELD DEPENDENCE FOR THE PHOTOTHERMOMAGNETIC AND PHOTOMAGNETIC EFFECTS SHOWED THAT THE 2 CURVES ARE SIMILAR. THE CHANGE IN THE SIGNS OF THE EFFECTS OCCURS AT THE SAME VALUE OF THE FIELD. BOTH CURVES EXHIBIT A SPIN SPLITTING OF THE 1ST MIN.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--PHASE EQUILIBRIUMS IN A DIMETHYL TEREPHTHALATE METHANOL WATER SYSTEM
-U-
AUTHOR--(02)-PYRANIKOVA, R.O., YEFREMOVA, G.D.
COUNTRY OF INFO--USSR
SOURCE--ZH. FIZ. KHIM. 1970, 44(3), 676-9
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHASE EQUILIBRIUM, PHTHALATE, METHANOL, WATER, ISOTHERM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/0714 STEP NO--UR/0076/TO/044/003/0676/0679
CIRC ACCESSION NO--AP0119621
UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119621

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SOLY. OF DI-ME TEREPHTHALATE (I) IN H SUB2 O-MEON WAS DETD. AT 50-140DEGREES. AT MEON CONCNS LARGER THAN 48PERCENT, THE LIQ. PHASE WAS HOMOGENEOUS, WHEREAS IN LESS CONCD. SOLNS. IT SPED. INTO 2 PHASES AT CERTAIN COMPN. RANGES. THE LIQ.-LIQ. EQUIL. WAS INVESTIGATED AT 115-80DEGREES. AT CONST. MEON-H SUB2 O RATIO, THE MUTUAL SOLY. OF THE LIQUID PHASES INCREASED WITH TEMP. ISOTHERMS OF THE SOLID-LIQ. AND LIQ.-LIQ. EQUIL. ON THE TRIANGULAR DIAGRAM WERE PLOTTED. UP TO 115DEGREES, THE CRYSTN. ISOTHERMS WERE CONTINUOUS OVER THE WHOLE COMPN. RANGE BUT, AT HIGHER TEMPS., A REGION OF THE LIQ.-LIQ. EQUIL. APPEARED, INCREASED WITH TEMP., AND THEN DECREASED. THE ISOTHERMS OF THE LIQ.-LIQ. EQUIL. ENDED AT CRIT. POINTS, AT WHICH THE CRITICAL PHENOMENA WERE OBSD. IN THE PRESENCE OF NON-CRIT. GAS PHASE. CRIT. PARAMETERS OF THE LIQ.-LIQ. EQUIL. IN THE SYSTEM WERE (TEMP. AND MOLAR FRACTIONS I AND MEON, RESP.) 122DEGREES, 0.105, 0.281; 130.7DEGREES, 0.085, 0.247; 174.5DEGREES, 0.089, 0.150. FACILITY: NAUCH.-ISSLED. INST. AZOT. PROM. PROD. ORG. SIN., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 614.73(47-25)"1962-1967"

ZYKOVA, A. S., TELUSHKINA, Ye. L., RUBLEVSKIY, V. P., YEFREMOVA, G. P., and
KUZNETSOVA, G. A.

"The Content of Artificial Radioactive Isotopes in the Air of Moscow in 1962-1967"

Moscow, Gigiyena i Sanitariya, No 4, 1970, pp 50-53

Abstract: The content of radioactive isotopes in 1962-1967 was highest throughout 1962 and early 1963, i.e., while nuclear weapons were being tested and during the first few months after the tests were halted. Even at the time of the most intense fallout, the mean concentration in the atmosphere was about $3 \cdot 10^{-15}$ curie/liter, or below the maximum permissible level established by Soviet health legislation. The level of radioactivity began to drop in the fall of 1963, and it continued to do so in all the years that followed. The mean annual concentration of radioactive aerosols from 1962-1967 decreased 40-fold, and that of Cs¹³⁷ and Sr⁹⁰ approximately 10-fold

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UDC 541.127+542.938+546.23

USSR

FEL'SKIY, V. YE., BEZZUBOVA, N. N., YEFREMOVA, M. V., and NURETDINOV, I. A.,
Institute of Organic and Physical Chemistry Leningrad A. Ye. Arbuzov Acad. Sc.
USSR

"Kinetics of Alkaline Hydrolysis of Some Selenophosphorusorganic Compounds"
Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 6, Jun 73, pp 1255-1257

Abstract: Reaction kinetics of the investigated compounds in aqueous alkaline solutions is of the first order both in regard to the substrate as well as the OH^- ions. This appears to be analogous to alkaline hydrolysis of other phosphorusorganic compounds in which the reaction occurs via the $\text{S}_{\text{N}}2$ mechanism at the phosphorus atom. Reactivity of selenophosphorusorganic compounds appears to be the same order reaction as that of the oxygen and sulfur analogues, if the selenium is in the $\text{P}=\text{Se}$ group.

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- 36 -

USSR

UDC 541.124 + 661.718.1

SEL'SKIY, V. YE., and YEFREMOVA, M. V., Institute of Organic and Physical Chemistry Imeni A. Ye. Arbuzov, Academy of Sciences USSR

"Inductive Effect and $p_{\pi}-d_{\pi}$ Conjugation in Phosphorus Acid Esters"

Moscow, Izvestiya Akademii Nauk, Seriya Khimicheskaya, No 7, Jul 70, pp 1542-1547

Abstract: Hydrolysis kinetics of a series of alkyl substituted phosphonates was studied in an attempt at quantitative determination of the inductive effect and of the $p_{\pi}-d_{\pi}$ conjugation. The kinetics of alkaline and neutral water hydrolysis was studied in dilute aqueous solutions. In both reactions only one ester bond is broken. It was found that introduction of electronegative groups into alkyl radicals at the phosphorus atom facilitated the hydrolysis. A correlation analysis was performed on the experimental data and the contribution of the inductive effect and of the $p_{\pi}-d_{\pi}$ conjugation of the ethoxyl group at the phosphorus atom to the free energy of activation was determined. With a nucleophilic substituent at the phosphorus atom the contribution of both effects is about equal, while for reactions at the side chain the inductive effect is the principal contributor.

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1/2 025 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--INTRAMOLECULAR CATALYSIS BY CHLORINE IN THE HYDROLYSIS OF
PHOSPHINATES AND PHOSPHONATES -U-
AUTHOR--(03)-BELSKIY, V.YE., YEFREMOVA, M.V., YELISEYENKOV, V.N.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (3), 561-4
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CATALYSIS, CHLORINE, HYDROLYSIS, ORGANIC PHOSPHORUS COMPOUND,
ACTIVATION ENERGY, INTRAMOLECULAR MECHANICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0995 STEP NO--UR/0062/70/000/003/0561/0564
CIRC ACCESSION NO--AP0124654
UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124654

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FOLLOWING VALUES OF RATE CONSTS. WERE REPORTED FOR AQ. HYDROLYSIS OF INDICATED ESTERS (IN K TIMES 10 PRIME6 SEC PRIME NEGATIVE); (SHOWN ON MICROFICHE). SINCE THE 3,CL SUBSTITUENT GREATLY INCREASES THE RATE OF AQ. HYDROLYSIS, A FORM OF INTRAMOL. EFFECT OF CL IN THIS POSITION APPEARS TO EXIST. THE DIFFERENT BEHAVIOR OF ESTERS IN REACTIONS WITH H SUB2 O AND HO PRIME NEGATIVE IS EXPLAINED BY DIFFERENT REACTION CENTERS. THE CALCD. ACTIVATION ENERGIES FOR THESE REACTIONS ARE NOT ANY LOWER FOR ESTERS IN WHICH THE INTRAMOL. "CATALYSIS" EXISTS THAN FOR THOSE IN WHICH IT IS ABSENT. HENCE, THE ACCELERATION IS DUE TO INCREASED SIZE OF THE PRE EXPONENTIAL COEFF. CAUSED BY CHANGE IN POLARIZABILITY OF THE TRANSITION STATE.
FACILITY: INST. ORG. FIZ. KHIM. IM. ARBUZOVA, KAZAN, USSR.

UNCLASSIFIED

USSR

UDC: 541.128+546.13

BEL'SKIK, V.YE., YEFREMOVA, M.V., YELISEYENKOV, V.N., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov, Academy of Sciences USSR

"Intramolecular Catalysis by Chlorine in Hydrolysis of Phosphinates and Phosphonates"

Moscow, Izvestiya Akademii Nauk SSSR: Seriya Khimicheskaya, No 3, Mar 70, pp 561-564

Abstract: The authors investigated the kinetics of reactions with water and hydroxyl anions for esters of chloroalkylphosphonic and bis(chloroalkyl)phosphinic acids with various positions of the chlorine atom in the molecule. For esters which have the chlorine atom in the α -position, an unusual increase in the rate of hydrolysis takes place which may be attributed to the intramolecular effect of the chlorine on the reaction center. The rate of hydrolysis in water can be described by an equation for first-order reactions. The rate constants k were determined from a graphic relationship corresponding to the equation

$$-\log C = 0.434kt + \text{const},$$

where C is the ester concentration. The rate constant for alkaline hydrolysis k_2 was determined from the slope of straight lines corresponding to an equation for second-order reactions

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USSR

BEL'SKIY, V.YE., et al, Izvestiya Akademii Nauk SSSR: Seriya Khimicheskaya, No 3, Mar 70, pp 561-564

$$\frac{2.3}{C_0 - (C_{OH^-})_0} \log \frac{C}{C_{OH^-}} = k_2 t + \text{Const},$$

where C_0 and $(C_{OH^-})_0$ are the initial concentrations, while C and C_{OH^-} are the instantaneous concentrations of ester and hydroxyl ions. The difference between the behavior of the esters in reactions with water and their behavior in the case of hydroxyl anions is apparently due to a change in the reaction center. The effect of chlorine on the reaction center during intramolecular catalysis is discussed. The authors thank I.A. ALEKSANDROVA for furnishing the γ -chloro-propylphosphonic acid ester specimens.

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YEFREMOVA, N. I.

SOI PRS 55015
25 JAN 72

UDC: 614.003.1(049.3)

ECONOMICS AND PUBLIC HEALTH (WITH REFERENCE TO AN ARTICLE BY N.I. MALAMUD)
[Article by N.I. Yefremova, Candidate of economic sciences, Chair of Industrial
Economics (headed by Professor N.N. Ukhov), Cor'yiy State University Isepi N.N.
Lobachevsky; Moscow, Sovetskoye Zdravookhraneniye, Kussaiu, No 12, 1971,
submitted 8 June 1971, pp 30-33]

Medics and economists are displaying more and more interest in works dealing with determination of the effect of public health care on the efficiency of production. The effectiveness of public health care on the links in the system of the results of activities of different influence of health protection on economics, and from the standpoint of the consequence of creating the prerequisites for growth of the work force and it must be indicated that in determining the benefit contributed by public health care with regard to multiplying national wellbeing there are a number of unsolved and debatable theoretical and methodological problems.

N.I. Malamud* correctly notes that diverse indices are used in published estimates to describe the economic effectiveness of public health care, and that in this respect there is no unity of opinion. He proposes that it be determined by conducting comprehensive investigation to find the savings in labor expressed as the savings of man-years and absolute increment in the national income because of this. However, in his calculations, N.I. Malamud does not make a distinction between concepts such as economic effect, economic effectiveness, and the criteria to evaluate the latter. Yet the development of methods of estimating the economic effectiveness of socialist public health care should be based on proper understanding of the essence of these concepts.

From the standpoint of the methodological approach to establishing the effectiveness of public health, determination of its criterion and forms of manifestation thereof, as well as the choice of indices that reflect this effectiveness the most fully serve as the starting point. In a socialist society, the highest criterion of effectiveness is satisfaction of the ever increasing demands of members of the society and providing growth of

*Sovetskoye Zdravookhraneniye (Soviet Public Health), No 11, pp 20-24, 1970.

Economics

Acc. Nr: **AP0051912**

Ref. Code: **UR0219**

PRIMARY SOURCE: Byulleten' Eksperimental'noy Biologii i
Meditsiny, 1970, Vol 69, Nr 2, PP 23-25

THE FUNCTION OF THE THYROID GLAND IN THE EARLY POST-RESUSCITATION
PERIOD

N. M. Yefremova

Laboratory of Experimental Physiology of Resuscitation, Moscow

Investigation was made of the content of protein-bound iodine in the early post-reanimation period five minutes after death resulting from blood losses and after 10—12 minutes arrest of blood circulation following electrotrauma. The character of changes in the function of the thyroid gland after terminal state was closely interrelated to the final result of reanimation. If the content of protein-bound iodine in the plasma decreased 6 hrs after reanimation, the animals showed restoration of the functions of the central nervous system. The animals that died 12—24 hrs after reanimation showed marked increase in the concentration of protein-bound iodine in the blood.

REEL/FRA
19820395

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072-027 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--DIFFERENCES IN THE THICKNESS OF THIN CLADDING DURING THE PRODUCTION
OF A CLAD WIRE -U-
AUTHOR--(65)-MASTEROV, V.A., ANDRYUSHCHENKO, T.A., SUVDROV, I.K.,
YOROPAYEV, YU.A., YEFREMEVA, P.M.
COUNTRY OF INFO--USSR
SOURCE--TSVET. METAL. 1970, 43(2), 52-4
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--METAL DRAWING, CLAD METAL, COPPER WIRE, SILVER, DEFORMATION
RESISTANCE, THICKNESS GAGE, METAL CLADDING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

ROXY REEL/FRA--1989/1922

STEP NO--UR/0136/70/043/002/0052/0054

ARC ACCESSION NO--AP0108251

UNCLASSIFIED

2/2 027

UNCLASSIFIED

PROCESSING DATE--02OCT70

IRC ACCESSION NO--AP0108251

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS AND THE POSSIBILITY OF DECREASING THE THICKNESS DIFFERENCES OF THIN CLADDINGS WERE INVESTIGATED FOR THE CU PLUS AG PAIR DURING THE PRESSING OF RODS AND DURING THE DRAWING FROM THEM OF WIRES SMALLER THAN OR EQUAL TO 150 MU IN DIAM. AND HAVING A COATING THICKNESS OF SIMILAR TO 7 MU. DURING THE PRESSING ON A VERTICAL 600 TON PRESS, THE ROLE OF PRIOR WELDING OF THE BAR, THE TOOL LUBRICANT, THE SHAPE OF THE DIE, AND THE HEATING AND DRAWING TEMPS., WAS INVESTIGATED. FOR THE SELECTION OF THE PROPER TEMP., THE RESISTANCE TO DEFORMATION OF CU AND OF AG WAS STUDIED. IN ORDER TO DET. THE MIN. THICKNESS OF THE COATING, STATISTICAL METHODS MUST BE USED WHICH MEANS THAT A LARGE NO. OF MEASUREMENTS MUST BE TAKEN, WHICH IS OF SOME DIFFICULTY BECAUSE OF THE THINNESS OF THE COATINGS.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--EMBRYOLOGIC AND GENETIC EFFECTS OF ELECTROMAGNETIC OSCILLATIONS OF
ULTRA HIGH FREQUENCY (MICROWAVES) -U-
AUTHOR--(03)-PIONTKOVSKIY, I.A., KRUGLIKOV, R.I., YEFREMOVA, T.A.
COUNTRY OF INFO--USSR
SOURCE--PATOLOGICHESKAYA FIZIOLOGIYA I EKSPERIMENTAL'NAYA TERAPIYA, 1970,
VOL 14, NR 2, PP 33-38
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--EMBRYOLOGY, ANIMAL GENETICS, MICROWAVE BIOLOGIC EFFECT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/0055 STEP NO--UR/0396/70/014/002/0033/0038
CIRC ACCESSION NO--AP0105154
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0105154

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. FEMALE RATS WITH 1 TO 20 DAY GESTATION PERIOD WERE SUBJECTED TO IRRADIATION WITH MICROWAVES 10 AND 50-55 MW-CM PRIME2 IN INTENSITY, FOR 20 AND 15 MINUTES, RESPECTIVELY; AFTER IRRADIATION WITH MICROWAVES, 50-55 MW-CM PRIME2 IN INTENSITY FOR 15 MINUTES, MALE RATS WERE COUPLED WITH NONIRRADIATED FEMALE ANIMALS. THE PROGENY OF IRRADIATED ANIMALS DISPLAYED REDUCED VIABILITY, MALDEVELOPMENT AND ANOMALIES, AS WELL AS CHANGES IN THE RATE OF POSTNATAL DEVELOPMENT. THERE WERE ALSO VARIOUS DISTURBANCES OF THE HIGHER NERVOUS ACTIVITY. UNDER DEFINITE CONDITIONS MICROWAVES PROVED TO PRODUCE BOTH GENETIC AND EMBRYOLOGIC EFFECTS. FACILITY: LABORATORIYA NEYRORADIOLOGII INSTITUTA VYSHEY NERVNOY DEYATEL'NOSTI I NEYKOFIZIOLOGII AN SSSR, MOSKVA.

UNCLASSIFIED

USSR

UDC 616-007.053.1-02:621.37/.39.029.64

PIONTKOVSKIY, I. A., KRUGLIKOV, R. I., and YEFRENOVA, T. A., Laboratory of Neuroradiology, Institute of Higher Nervous Activity and Neurophysiology, Academy of Sciences USSR

"Embryological and Genetic Effects of Ultrahigh-Frequency Electromagnetic Oscillations"

Moscow, Patologicheskaya Fiziologiya i Eksperimental'naya Terapiya, No 2, 1970, pp 33-38

Abstract: Somatic development and CNS function were studied in the offspring of rats born of mothers exposed to microwaves (2 12.6 cm at 10 and 50-55 mw/cm² for 20 and 15 min, respectively) during gravidity (embryological effect), and in the offspring of nonirradiated mothers mated with males exposed to microwaves (50-55 mw/cm² for 15 min) (the genetic effect). Both groups of offspring exhibited the types of malformations and developmental anomalies produced by ionizing radiation - decreased viability, slow rate of growth, and CNS abnormalities notably, lags in the formation and stabilization of conditioned reflexes.

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Acc. Nr.

AP0048801

Abstracting Service:
CHEMICAL ABST.

YEFREMOVA

5-70

T.B.

Ref. Code

21R0080

90947c Ir-spectroscopic studies of a vinyl alcohol-N-vinylpyrrolidinone copolymer. Savitskaya, A. N.; Klimenko, I. B.; Efremova, T. B.; Vol't, L. A.; Meos, A. I. (USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 213-14 (Russ). A study of the ir spectra of poly(vinyl alc.); poly(N-vinylpyrrolidinone), and the title copolymer (I) indicated that some lactam rings are opened during synthesis of I. Thus, an intense band at 1570 cm^{-1} in the spectrum of I was assigned to RCO_2^- , arising via cleavage of the lactam rings. This assignment was confirmed by potentiometric titm.

DBJR

LD

REEL/FRAME

19800564

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USSR

POZDNYAKOV, V. M., VOL'F, L. A., YEFREMOVA, T. B., and MEOS, A. I., Leningrad
Institute of Textile and Light Industry imeni S. M. Kirov

"Preparation of Fibers for Medical Use From Copolymers of Vinyl Alcohol and
Vinylpyrrolidone"

Riga, Fiziologicheski i Opticheski Aktivnyye Polimernyye Veshchestva, "Zinatne,"
1971, pp 155-158

Abstract: The aim of this work was to prepare fibers capable of absorbing anti-bacterial preparations and prolonging their release in the human body. It was hypothesized that the presence of the polyvinylpyrrolidone chains in such fibers would improve the desirable properties of the prepared materials. Polyvinyl alcohol (PVA) and polyvinylpyrrolidone (PVP) were used for this purpose. Several methods for the preparation of materials with antimicrobial properties were tried. One of them was molding a mechanical mixture of 15 and 20% solutions of PVA and PVP in ratios of 90:10 and 70:30, respectively. The molding was carried out in the sodium sulfate bath (400 g Na_2SO_4 /liter), followed by stretching the prepared fibers in air. When water-soluble fibers were desirable, they were washed free of Na_2SO_4 in acetone. The initial ratio of PVA and PVP remained unchanged in the prepared product. The second method used

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USSR

POZDNYAKOV, V. M., et al., Fiziologicheski i Opticheski Aktivnyye Polimernyye Veshchestva, "Zinatne," 1971, pp 155-158

was the copolymerization of PVA and PVP. The copolymerization was carried out successfully in ethanol, benzene, or ethyl acetate (10-50% with respect to weight of monomers). The obtained product always contained the vinylpyrrolidone chains regardless of the initial ratio of starting compounds. However, copolymerization in benzene produced the best results. Copolymerization by the emulsion method was also tried. Fibers from spinning solution (25-30%) were also prepared by molding, followed by stretching in air, drying, and washing in alcohol. This method yielded fibers with good physical and mechanical properties. They were soluble in water at room temp. in 1 hr, but the solubility time could be prolonged by thermostabilization of fibers in air. All fibers produced by the above methods are undergoing testing at medical institutions.

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- 90 -

1/2 010
UNCLASSIFIED
TITLE--DEVELOPMENT OF RELAY BRANCH OF UNIVERSAL SYSTEM OF ELEMENTS OF
INDUSTRIAL PNEUMATIC AUTOMATION -U-
AUTHOR--(04)-BERENDS, T.K., YEFREMOVA, T.K., TAGAYEVSKAYA, A.A., TAL, A.A.
COUNTRY OF INFO--USSR
SOURCE--AVTOMATIKA I TELEMEXHANIKA, 1970, NR 4, PP 176-181
DATE PUBLISHED-----70
SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., MECH., IND., CIVIL AND
MARINE ENGR
TOPIC TAGS--INDUSTRIAL AUTOMATION, DISCRETE AUTOMATION, PNEUMATIC CONTROL
SYSTEM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1731
STEP NO--UR/0103/70/000/004/0176/0181
CIRC ACCESSION NO--AP0113709
UNCLASSIFIED

2/2 010

UNCLASSIFIED

PROCESSING DATE--160CT70

CIRC ACCESSION NO--AP0118709

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THERE IS PRESENTED THE VALIDITY OF
THE EXPEDIENCY OF USING A JET DIAPHRAGM METHOD OF CONSTRUCTING PNEUMATIC
DISCRETE SYSTEMS IN THE RELAY BRANCH OF THE UNIVERSAL SYSTEMS.

UNCLASSIFIED

Immunology

USSR

UDC 615.372:576.851.551].015.4:612.017.1

YEGOROVA, N. B., YEFREMOVA, V. N., and FEDYAYEV, S. F., Moscow Institute of Vaccines and Sera imeni Mechnikov

"Immunobiological Parallels in Experimental Investigations of Dry and Liquid Vaccinal Aerosols on Animals. Report II. Sensitizing Action of Tetanus Toxoid Aerosol Depending on Its Fractional Dispersive Composition"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 11, 1971, pp 82-87

Abstract: The tests were performed on guinea pigs, and the development of anaphylactic shock and lethal outcome served as the criterion of sensitization. In all cases, the antitoxin titers in the animals were 0.01-0.1 MU/ml after the first vaccination and 40-50 MU/ml after the second vaccination. Combined tetanus toxoid and typhoid antigen aerosol containing less than 50% of small particles (up to 2 microns in diameter) induced anaphylactic shock in 33% of the animals after the first immunization and in 49% after the second, while combined aerosol containing 60-70% of the small particles induced anaphylactic shock in 73% and 79% respectively and lethal outcome in 23% of the animals. Vaccination with aerosols containing only tetanus toxoid yielded similar results. It is concluded that the presence of typhoid antigen does not

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USSR

YEGOROVA, N. B., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 11, 1971, pp 82-87

affect the toxicity of the preparation and that the proportion of small dispersoids should be appropriately reduced in order to make the aerosols less toxic.

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1/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--AEROSOL REVACCINATION WITH TYPHOID BOTULINUM A AND B TRIVACCINE AND
WITH TYPHOID TETANUS BOTULINUM A AND B TETRAVACCINE UNDER EXPERIMENTAL
AUTHOR--(05)-ALEKANDROV, N.I., GEFEN, N.YE., YEGOROVA, N.B., YEFREMOVA,
V.N., VORONTSOV, I.V.
COUNTRY OF INFO--USSR
SOURCE--ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, 1970, NR 5,
PP 84-89
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--AEROSOL VACCINE, TYPHOID FEVER VACCINE, IMMUNIZATION,
BOTULISM, TETANUS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1994/0151 STEP NO--UR/0016/70/000/005/0084/0089
CIRC ACCESSION NO--AP0114547
UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0114547

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. A STUDY WAS MADE OF THE POSSIBILITY OF INDUCTION OF INTENSE IMMUNITY AGAINST BOTULISM, TYPES A AND B, AND TETANUS FOLLOWING SINGLE AEROSOL REVACCINATION WITH ASSOCIATED PREPARATIONS. RABBITS AND GUINEA PIGS WHICH WERE VACCINED TWICE WITH SEXTATOXOID OF THE KHARKOV INSTITUTE OF VACCINE AND SERA 5 TO 6 MONTHS BEFORE WERE SUBJECTED TO REVACCINATION. AEROSOL REVACCINATION WITH TYPHOID BOTULINUM A AND B TRIVACCINE, AND WITH TYPHOID TETANUS BOTULINUM A AND B TETRAVACCINE PRODUCED A CONSIDERABLE ELEVATION OF THE LEVEL OF ANTITOXIN AGAINST ALL THE TOXOIDS INCLUDED INTO THE COMPOSITION OF THE VACCINES. REVACCINATED RABBITS PROVED TO BE RESISTANT TO ADMINISTRATION OF 500 DLM OF BOTULIN, TYPE A, AND OF 100 DLM OF TYPE B. THERE WAS ALSO AN ELEVATION OF THE TITRES OF TYPHOID O HEMAGGLUTININS IN RABBITS. FACILITY: MOSCOW INSTITUT VAKSIN I SYYOROTOK IM. MECHNIKOVA.

UNCLASSIFIED

1/2 040 UNCLASSIFIED PROCESSING DATE--02 OCT 70
TITLE--SYNTHESIS, STRUCTURE, AND BEHAVIOR OF POLYMERS OF THE METHYL
ISOPRENECARBOXYLATE OBTAINED BY ANIONIC AND RADICAL POLYMERIZATION -U-
AUTHOR--(051)-ARBUZOVA, I.A., YEFREMOVA, V.N., YELISEYEVA, A.G., VIKITIN,
V.N., SIDOROVICH, A.V.
COUNTRY OF INFO--USSR
SOURCE--VYSOKOMOL. SOEDIN., SER. A 1970, 12(3), 697-704
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, MATERIALS
TOPIC TAGS--ISOPRENE, CARBOXYLIC ACID ESTER, POLYMERIZATION, LOW
TEMPERATURE EFFECT, ORGANOLITHIUM COMPOUND, POLYMER STRUCTURE, PHASE
TRANSITION, IR SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/0311 STEP NO--UR/0459/70/012/003/0697/0704
CIRC ACCESSION NO--AP0111505
UNCLASSIFIED

2/2 040

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0111505

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ANIONIC POLYMER OF H SUB2
C:CHCME:CHC SUB2 ME (I), CARRIED OUT AT NEGATIVE 60 DEGREES TO
NEGATIVE 70 DEGREES IN PHME SOLN. CONTG. 0.02 MOLE-L. BULI GAVE 80 PERCENT
I POLYMER (II) IN LESS THAN OR EQUAL TO 60 MIN. THE FREE RADICAL BULK
POLYMER OF I IN THE PRESENCE OF 0.2 WT. PERCENT (ON I) BZ SUB2 O SUB2
REQUIRED 90 HR AT 60-80 DEGREES TO GIVE 75-80 PERCENT I POLYMER (IIA).
HEATING THE AMORPHOUS IIA CONVERTS IT TO A CRYST. FORM. I IS CRYST. AT
ROOM TEMP. BOTH II AND IIA HAVE A PHASE TRANSITION POINT AT 90 DEGREES
AND GLASS POINT AT 20 DEGREES. BY IR SPECTROSCOPY THEY BOTH HAVE 1,4
TRANS CONFIGURATION.

UNCLASSIFIED

USSR

UDC 615.281.547.793.2(Furazolidonum).015.46

YEFREMOVA, YU. M., KIVMAN, G. YA., and FINN, G. R., Chair of Microbiology,
Volgograd Medical Institute

"The Effect of Furazolidone on Some Aspects of Immunity"

Moscow, Farmakologiya i Toksikologiya, Vol 35, No 2, Mar/Apr 72, pp 210-213

Abstract: In rabbits previously immunized with killed typhoid bacteria, furazolidone given in daily enteral doses of 7 mg per kg body weight reduces neither the complement and agglutinin titers nor the bactericidal activity of blood serum. In mice given identical doses of furazolidone for two days and then inoculated with an intraperitoneal LD₅₀ of typhoid fever bacteria, phagocytosis and resistance are considerably increased, yielding a higher survival rate: 76% as compared with 58% in the controls. It is suggested that this immunity-promoting effect of furazolidone may find practical application.

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1/2 023
UNCLASSIFIED
PROCESSING DATE--30OCT70
TITLE--INCREASE IN THE STABILITY OF ADHESION PROPERTIES IN A POLYETHYLENE
METAL SYSTEM --U
AUTHOR--(05)--BEIDER, E.YA., VINOGRADOVA, L.M., GUDIMOV, M.M., YEFREMOVA,
~~Z.A.~~ KOROLEV, A.YA.
COUNTRY OF INFO--USSR
SOURCE--VYSOKOMOL. SOEDIN., SER. B 1970, 12(3), 222-5
DATE PUBLISHED--70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--ADHESION, POLYETHYLENE, ALUMINUM SURFACE, ISOCYANATE, ORGANIC
SILANE, OLEIC ACID, METAL TO NONMETAL BONDING
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0666
STEP NO--UR/0460/70/012/003/0222/0225
CIRC ACCESSION NO--AP0124338
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--30OCT71

CIRC ACCESSION NO--AP0124338

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. AN AL SURFACE TREATED WITH
TOLYLENE DIISOCYANATE, GAMMA AMINO PROPYLTRIEHTOXYSILANE, AND OLEIC ACII
EXHIBITED SUPERIOR ADHESION TO POLYETHYLENE DEPOSITED BY EDDY SPRAYING.
THE MODIFIED SURFACES WERE ALSO RESISTANT TO LONG TERM EXPOSURE TO H
SUB2 O. A MODIFICATION MECHANISM IS PROPOSED.

UNCLASSIFIED

1/2 026 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--DETERMINATION OF NEODYMIUM, SAMARIUM, AND EUROPIUM AS IMPURITIES IN
LANTHANUM OXIDE BY A LUMINESCENCE OF METHOD -U-
AUTHOR--(03)-POLUEKTOV, N.S.; SMIRDOVA, N.I.; YEFRYUSHINA, N.P.
COUNTRY OF INFO--USSR
SOURCE--ZH. ANAL KHM.: 25: 715-18 (ARP 1970)
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY, PHYSICS
TOPIC TAGS--LUMINESCENCE, NEODYMIUM, EUROPIUM, SAMARIUM, LANTHANUM OXIDE,
CHLORIDE, OXYGEN COMPOUND, METAL CHEMICAL ANALYSIS, FLUORESCENCE
SPECTRUM, CRYSTAL PHOSPHOR
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/0456 STEP NO--UR/0075/70/025/000/0715/0718
CIRC ACCESSION NO--AP0126208
UNCLASSIFIED

2/2 026

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126208

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A LUMINESCENCE METHOD HAS BEEN DEVELOPED FOR DETERMINING NEDDYMIUM, SANARIUM, AND EUROPIUM IN LANTHANUM OXIDE OF HIGH PURITY BY RECORDING THE FLUORESCENCE SPECTRA OF CRYSTAL PHOSPHORS BASED ON LANTHANUM OXYCHLORIDE. THE SENSITIVITY OF THE METHOD IS N TIMES 10 PRIME NEGATIVE5 TO N TIMES 10 PRIME NEGATIVE4PERCENT.

FACILITY: INST. OF GENERAL AND INORGANIC CHEMISTRY, ODESSA.

UNCLASSIFIED

1/2 014
TITLE--REACTION OF NEODYMIUM AND ERBIUM IONS WITH POLYHYDRIC ALCOHOLS AND
ASCORBIC ACID -U-
AUTHOR--(02)-POLUEKTOV, N.S., YEFRYUSHINA, N.P.
COUNTRY OF INFO--USSR
SOURCE--UKR. KHIM. ZH. 1970, 36(2), 164-9
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--NEODYMIUM, ERBIUM, ION, SPECTROPHOTOMETRIC ANALYSIS, RARE
EARTH METAL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1920
CIRC ACCESSION NO--AP0118882
STEP NO--UR/0073/70/036/002/0164/0169
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0118882

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE 2:1 ND PRIME3 POSITIVE SORBITOL COMPLEX FORMED AT IONIC STRENGTH 0.3 INVOLVES DISPLACEMENT OF 4 ATOMS OF H FROM THE ALC. THE NEG. LOG OF THE FORMATION CONST. IS 24.85 ACCORDING TO SPECTROPHOTOMETRIC DETNS. THE COMPLEX IS A CATION. THE PK OF FORMATION OF THE ER PRIME3 POSITIVE SORBITOL COMPLEX IS 20.71. ND(OH) PRIME2 POSITIVE AND ER(OH) PRIME2 POSITIVE ALSO FORM 2:1 COMPLEXES WHICH INVOLVE DISPLACEMENT OF 2 ATOMS OF H. THE PK OF FORMATION ARE 8.01 AND 4.78, RESP. MANNITOL AND INOSITOL BEHAVE SIMILARLY. THE 1:1 COMPLEXES FORMED BY ND PRIME3 POSITIVE AND ER PRIME3 POSITIVE WITH ASCORBATE ION (HA PRIME NEGATIVE) INVOLVE THE DISPLACEMENT OF 1 H ATOM. THE REPORTED FORMATION CONSTS. OF MA FROM M PRIME3 POSITIVE AND A PRIME2 NEGATIVE ARE 4.5 TIMES 10 PRIME8 AND 1.07 TIMES 10 PRIME9 FOR ND AND ER, RESP. FACILITY: LAB., INST. ODSHCH. NEORG. KHIM., ODESSA, USSR.

UNCLASSIFIED

USSR

UDC 620.172.251.224

YEFTIKHIN, V. A., ZVEZDIN, Yu. I., KAPRIZOV, V. A., and PUGACHEV, G. S.

"Device for Creep and Fatigue Strength Tests of Metals at High Temperatures in a Vacuum of the Order of 10^{-9} mm Hg"

Moscow, Zavodskaya Laboratoriya, No 2, 1971, pp 228-230

Abstract: A device for creep and fatigue strength tests of metals at high temperatures in a vacuum of the order of 10^{-9} mm Hg is described. Its main components - vacuum system, electro-supply and control systems, charging device, heater, and deformation measuring system - are discussed in detail by reference to a diagram. Results of fatigue strength tests of some niobium alloys in a vacuum of 10^{-7} — 10^{-9} mm Hg are demonstrated and compared with tests conducted on the PB-3012 unit producing a vacuum of 10^{-6} mm Hg. It is concluded that a vacuum of at least 1×10^{-8} mm Hg which is free of oil vapors must be used to obtain the correct strength characteristics of the investigated metals.

1/1

Surgery

USSR

YEFUNI, S., Doctor of Medical Sciences, Professor

"Oxygen Barotherapy"

Moscow, Pravda, 7 Apr 72, p 6

Abstract: The use of pressure chambers in the treatment of hypoxemia is discussed in general terms. Hyperbaric oxygenation is in limited use in heart surgery; the equipment is expensive and requires specially trained personnel. The largest pressure chamber complex in the world is being completed at the Scientific Research Institute of Clinical and Experimental Surgery. It will accommodate a large number of surgeons, anesthesiologists, reanimatologists, and six patients at a time. An advantage of using pressure chambers during surgery is that artificial circulation can be maintained at slow speeds, doing less damage to erythrocytes. It opens up the possibility of diluting blood with artificial plasma substitutes. Positive results have been obtained in the treatment of gas gangrene with hyperbaric oxygenation. An experimental "drifting lung" method of oxygenation, accomplished by introducing a microemulsion of oxygen into the blood stream which circulates with the blood and is effective for prolonged periods of time, is being tested on dogs. This method does not require the use of a pressure chamber.

1/1

1/2 018
UNCLASSIFIED
TITLE--STUDY OF PEROXIDASE AND CATALASE ACTIVITY IN OXYGEN UNDER RAISED
PRESSURE -U-
AUTHOR-(04)-YEFUNI, S.N., MIKHAYLOV, YU.YE., FOKINA, T.S., SHIMKEVICH,
L.L.
COUNTRY OF INFO--USSR
SOURCE--EKSPERIMENTAL'NAYA KHIRURGIYA I ANESTEZIOLOGIYA, 1970, NR 3, PP
63-65
DATE PUBLISHED--70
PROCESSING DATE--30OCT70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--OXIDASE, CATALASE, ENZYME ACTIVITY, OXYGEN TOXICITY, WHITE
MOUSE, HYPERBARIC MEDICINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3003/0121
STEP NO--UR/0481/70/000/003/0063/0065
CIRC ACCESSION NO--AP0129377
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129377

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PEROXIDASE AND CATALASE ACTIVITY IN BLOOD AND CERTAIN INTERNAL ORGANS WAS STUDIED UNDER ACTION OF PURE OXYGEN WITH PRESSURE OF 5 ATMOSPHERES TILL TOXIC CRAMPS SUPERVENED IN WHITE MICE. PEROXIDASE ACTIVITY ROSE MARKEDLY IN THE PERIPHERAL BLOOD AND IN THE LEUCOCYTES INFILTRATING THE PARENCHYMATOUS ORGANS, AS WELL AS CATALASE ACTIVITY IN THE BLOOD INCREASED AT THE EXPENSE OF ERYTHROCYTOSIS (CATALASE INDEX REMAINED PRACTICALLY UNCHANGED). MARKED TISSUE EOSINOPHILIA WAS FOUND. DATA OBTAINED ARE COMPARED WITH LITERATURE DATA ON INCREASE CONTENT OF PEROXYDE COMPOUNDS IN THE BODY DURING OXYGEN INTOXICATION. IR IS SUGGESTED THAT INCREASED ACTIVITY OF THE ABOVE ENZYMES IN A SIGN OF ADAPTATION OF THE BODY TO TOXIC ACTION OF OXYGEN. FACILITY: LABORATORIYA ISKUSSTVENNOY OKSIGENATSII NAUCHNO-ISSLED. INSTITUTA KLINICHESKOY I EKSPERIMENTAL'NOY KHIRURGII, MZ SSSR, MOSKVA.

UNCLASSIFIED

USSR

UDC 541.951.3:547.1'118:541.62

GUBAYDULLIN, R. N., YEGANOV, V. F., ARSHINOVA, R. P., and MUKHOMENOV, E. T.,
Institute of Organic and Physical Chemistry Imeni A. Ye. Arbuzov Acad. Sc.
USSR, and Chemical Institute Imeni A. M. Butlerov, Kazan' State University
Imeni V. I. Ul'yanov-Lenin

"Formation of Isomeric Diphenylpentaerythritol Diphosphites in the Transesteri-
fication of Triphenyl Phosphite With Pentaerythritol"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 5, May 73, pp
1116-1118

Abstract: Using thin layer chromatography, it was shown that the transesterifi-
cation of triphenyl phosphite with pentaerythritol at 100-120°/10 mm yields
3,9-diphenoxy-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5,5]undecane, m.p. 118-120°C
and α -(2,6,7-trioxa-1-phosphabicyclo[2,2,2]octyl-4)-methyldiphenyl phosphite,
m.p. 82-84°C. These structures were identified by parallel syntheses.

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- 40 -

UNCLASSIFIED
TITLE--TREATMENT OF TRICHOMONIASIS OF THE UROGENITAL ORGANS WITH THE 2ND
FRACTION OF ASD DRUG -G-
AUTHOR--YEGANOV, YE.P., KIRKIN, YE.M.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 1, PP 71-73
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--GENITOURINARY SYSTEM DISEASE, DRUG EFFECT, PARASITIC DISEASE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1970/0473
CIRC ACCESSION AC--APOC47347
UNCLASSIFIED

PROCESSING DATE--03JUL70
16
5
21

Acc. Nr: **AP0047347**

Ref. Code: **UR 0206**

PRIMARY SOURCE: **Vestnik Dermatologii i Venerologii, 1970,**
Nr 1, pp 71-73

TREATMENT OF TRICHOMONIASIS OF THE UROGENITAL ORGANS WITH THE
2nd FRACTION OF ASD DRUG

Yeganov, Ye. P.; Kirkin, Ye. M.

Summary

Because of difficulties of treatment of trichomoniasis of the urogenital organs we began in 1961 studies of the therapeutic effect of the 2nd fraction of ASD drug in this disease. Observations of many years have shown that 2-5% solutions of ASD in furaciline (1:5000) are highly effective in treatment of trichomoniasis. The cure is achieved within the first 4-6 days. In neglected cases of genital trichomoniasis in women another 4-day course of treatment is required. No untoward effect of the treatment was observed. Laboratory studies showed that trichomonads die after 1-1 1/2 min. of action of 1% solution of the 2nd fraction of ASD.

The high effectiveness of this treatment permits it be recommended for practical application.

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REEL/FRAME
19790873

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1/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--PREPARATIVE GAS CHROMATOGRAPHY OF LIGHT HYDROCARBONS -U-
AUTHOR--(02)-KOLESNIKOVA, R.O., YEGELSKAYA, L.P.
COUNTRY OF INFO--USSR
SOURCE--(PREPARATIVNAYA GASOVAYA KHRUMATOGRAFIYA LEGKIKH UGLEVODRODOV)
MOSCOW, KHIMIYA, 1970, 137 PP
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--GAS CHROMATOGRAPHY, HYDROCARBON SEPARATION, CHEMICAL PURITY,
CHEMICAL LABORATORY APPARATUS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3003/1691 STEP NO--UR/0000/70/000/000/0001/0187
CIRC ACCESSION NO--AM0130565
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AM0130565

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. PREFACE 7. INTRODUCTION 8.

CHAPTER I. PRINCIPLES OF PREPARATORY GAS CHROMATOGRAPHY 11. II. COLUMN

FILLERS 33. III. PREPARATORY DEVICES AND EQUIPMENT 65. IV. METHODS

FOR SEPARATION OF LIGHT HYDROCARBONS 100. V. DETERMINATION OF PURITY

OF HYDROCARBONS SEPARATED BY MEANS OF PREPARATORY CHROMATOGRAPHY 165.

APPENDIX 178. PREPARATORY CHROMATOGRAPHY REPRESENTS THE MOST

CONVENIENT METHOD FOR OBTAINING PURE SUBSTANCES IN LABORATORY

CONDITIONS. IN THE NEAR FUTURE, PREPARATORY CHROMATOGRAPHY WILL BE

NECESSARY FOR INDUSTRIAL AND SEMI INDUSTRIAL PRODUCTION OF PURE

SUBSTANCES, HOWEVER, NOT EVEN ONE GENERAL TYPE WORK ON PREPARATORY GAS

CHROMATOGRAPHY OF LIGHT HYDROCARBONS CAN BE FOUND IN CONTEMPORARY

LITERATURE. THE AUTHORS ATTEMPTED TO FILL THIS GAP AND HELP MANY

SCIENTISTS IN THE USE OF PREPARATORY CHROMATOGRAPHY IN THEIR WORK.

UNCLASSIFIED

104601z Solid solutions of $2\text{CaO} \cdot \text{SiO}_2$ with some metal oxides. Eremin, N. I.; Egereva, A. I.; Dmitrieva, A. M.; Eufarova, I. B. (Vses. Nauch.-Issled. Proekt. Inst. Alyum., Magn. Elektrodnoi Prom., Leningrad, USSR). Zh. Prikl. Khim. (Leningrad) 1970, 43(1), 18-24 (Russ). Solid solns. of $2\text{CaO} \cdot \text{SiO}_2$ (I) with each of Na_2O , Fe_2O_3 , TiO_2 , and MgO formed either during slow or rapid cooling of heat-treated mixts. were investigated by means of x-ray anal. The soly. of Na_2O , Fe_2O_3 , TiO_2 , and MgO in the β -modification of $2\text{CaO} \cdot \text{SiO}_2$ is 0.6, 1.8, 0.75, and 1.0% and the n_s of the solid solns. formed are 1.728-1.730, 1.740-1.742, (not given), and 1.730, resp. The phase diagram for the $\text{MgO}-2\text{CaO} \cdot \text{SiO}_2$ system is presented. The effect of the metal oxides on the transition of the β into the γ -modification of $2\text{CaO} \cdot \text{SiO}_2$ is discussed. Ivan Wichterle.

REEL/FRAME
19791219

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